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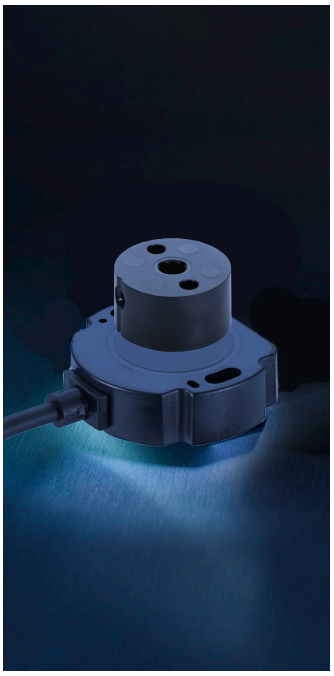
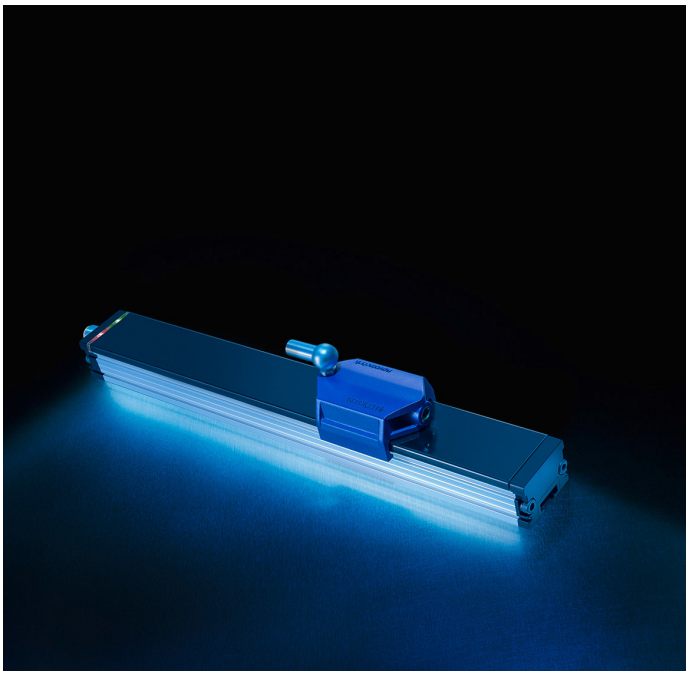
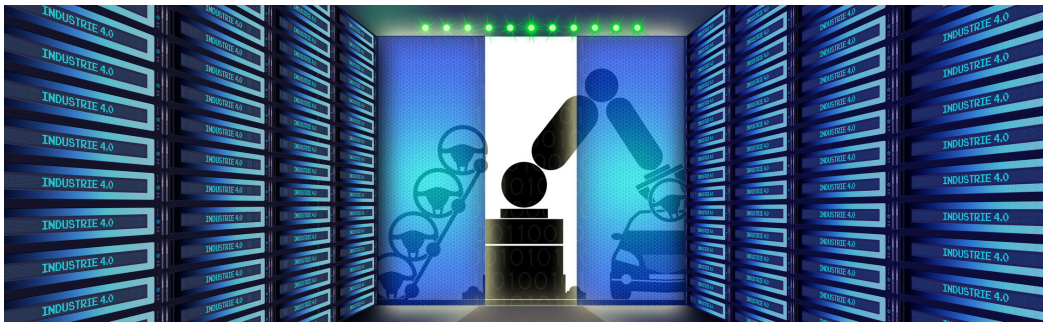
Linear and Rotary Position Sensors
with IO-Link Interface

IO-Link





Linear and Rotary Position Sensors with IO-Link Interface: Helping You Save Time and Money.



Industry 4.0 - Ready for the Future, with Linear and Rotary Position Sensors
The idea and goal behind Industry 4.0 is the real-time collection of all relevant data of value-add processes, resulting in improved cost structures, resources, and availability.
To this end, all the components involved in the process must be interlinked, and the required data must be available for evaluation and action.

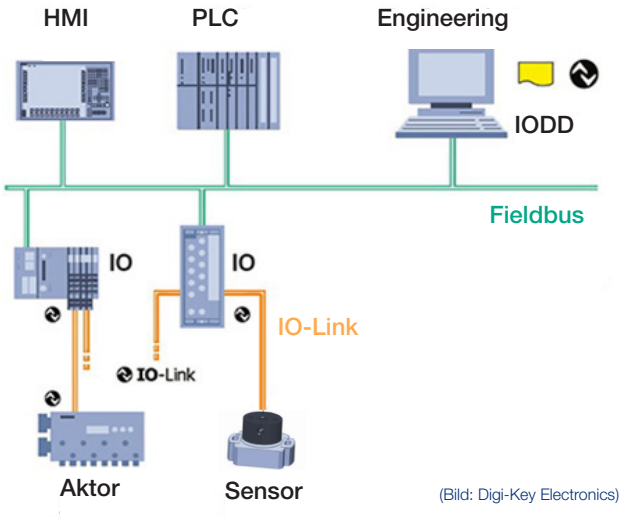
IO-Link Revolutionizes Communications at the Field Level
An important factor are sensors which capture the conditions within manufacturing processes and plants and communicate them to higher-level systems, such as control units. Standardizing this communication makes great sense.

For this purpose, Novotechnik is offering linear and rotary position sensors with the independent communications standard IO-Link (IEC 61131-9), which fully utilizes the characteristics of intelligent sensors. In order to facilitate the interlinking of sensors with the most diverse systems and control units worldwide, IO-Link can be implemented into the most various bus systems via gateways, thus facilitating considerable cost reductions through the use of intelligent diagnostics and parameter setting concepts.

Quick and Easy Activation
The point-to-point connection offers field bus functionality and seamless communications down to the sensor level. The standardized control software allows for quick activation.

Intelligent IO-Link Devices Offering Self-testing Functions
In addition to purely positional data, additional data, such as status or diagnostics messages is exchanged. This allows for quick identification of control loop errors; and thanks to the central storage of the settings, sensor replacements can be accomplished in little time. The user can modify parameters, such as zero, direction of rotation, or resolution.

IO-Link for Cost Reductions and Improved Productivity
The simple wiring using unshielded 3-wire cables results in considerable cost savings in comparison to expensive Ethernet lines.
Thus, IO-Link ultimately offers increased productivity, benefitting automation technology as well as engineering.



(Bild: Digi-Key Electronics)

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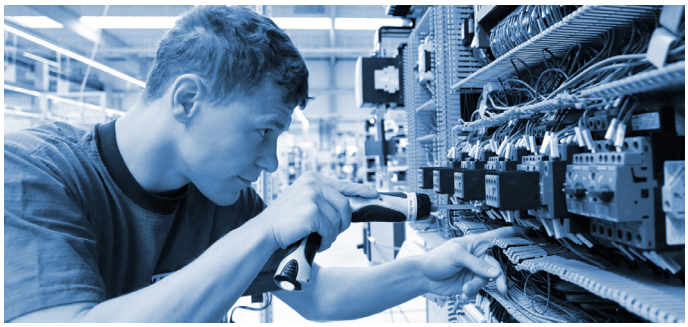

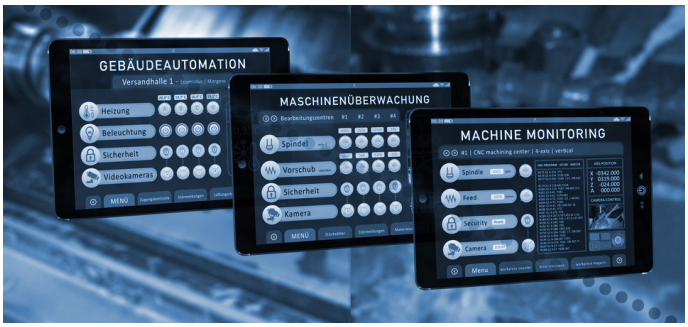

Activation
- Plug & Play installation: quick activation thanks to standardized software and ease of operation
- unshielded 3-wire cables with standardized pin assignment
- considerably less installation efforts as well as reduced space requirements in the control box
- reduced diversity of variants due to configuration of process data and additional parameters, such as user-determined resolution adjustment

Operation and Maintenance
- interference-free signal at the 24 V level
- simultaneous transmission of measurement and status data
- recall of diagnostics data for scheduled maintenance during operation
- ease of replacement due to intelligent parameter management and backup in device and master
- minimal downtime thanks to seamless device diagnostics and identification of errors, such as position marker loss

Linear Position Sensors with IO-Link - Series TP1, TH1, TF1
- magnetostrictive and inductive technologies
- touchless position measurement
- free of wear, unlimited mechanical life
- measuring ranges from 50 to 4250 mm
- resolution of up to 1 µm
- position signal and optional speed signal, also for multiple position markers (customer-configurable)
- internal temperature monitoring for diagnostics and preventive maintenance
- settable parameters: zero, resolution, and averaging

Rotary Position Sensors with IO-Link - Series RFC-4800, RSC-2800, RSB-3600
- magnetic Hall effect technology
- touchless position measurement
- with integrated shaft or two-part design
- 360° measuring range
- 14 bit resolution
- position and speed signals
- 17 bit revolution counter (volatile)
- settable parameters: zero, resolution, averaging, and direction of rotation